

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/05511

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H03M7/40

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

INSPEC, IBM-TDB, COMPENDEX, EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BARBIR A: "A new fast approximate arithmetic coder" SYSTEM THEORY, 1996., PROCEEDINGS OF THE TWENTY-EIGHTH SOUTHEASTERN SYMPOSIUM ON BATON ROUGE, LA, USA 31 MARCH-2 APRIL 1996, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 31 March 1996 (1996-03-31), pages 482-486, XP010158627 ISBN: 0-8186-7352-4	1,8,10, 16
Y	the whole document	3-7,9, 12-15 2,11
A	---	-/--



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

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\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

5 March 2003

Date of mailing of the international search report

17/03/2003

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 16014 A (PHILIPS ELECTRONICS NV ;PHILIPS NORDEN AB (SE)) 16 April 1998 (1998-04-16) cited in the application figures 10,11 ----	3-7,9, 12-15
X	LANGDON G: "An introduction to arithmetic coding" IBM JOURNAL OF RESEARCH AND DEVELOPMENT, IBM CORPORATION, ARMONK, US, vol. 28, no. 2, 1 March 1984 (1984-03-01), pages 135-149, XP002086019 ISSN: 0018-8646 cited in the application page 137 -page 138 ----	1,8,10, 16
X	US 4 652 856 A (MOHIUDDIN KOTTAPPURAM M A ET AL) 24 March 1987 (1987-03-24) cited in the application column 3, line 19 - line 62 column 4, line 60 -column 6, line 47 ----	1,8,10, 16
A		2,11
A	HUYNH L: "Multiplication and division free adaptive arithmetic coding techniques for bi-level images" PROCEEDINGS DCC '94. DATA COMPRESSION CONFERENCE (CAT. NO.94TH0626-2), PROCEEDINGS OF IEEE DATA COMPRESSION CONFERENCE (DCC'94), SNOWBIRD, UT, USA, 29-31 MARCH 1994, pages 264-273, XP002233494 1994, Los Alamitos, CA, USA, IEEE Comput. Soc. Press, USA ISBN: 0-8186-5637-9 the whole document ----	1,8,10, 16
A	MOFFAT A ET AL: "ARITHMETIC CODING REVISITED" ACM TRANSACTIONS ON INFORMATION SYSTEMS, ASSOCIATION FOR COMPUTING MACHINERY, NEW YORK, US, vol. 16, no. 3, July 1998 (1998-07), pages 256-294, XP000934130 ISSN: 1046-8188 cited in the application the whole document ----- -/--	1,8,10, 16

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>KIELY A ET AL: "A NOVEL BIT-WISE ADAPTABLE ENTROPY CODING TECHNIQUE" PROCEEDINGS OF THE 2001 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY. ISIT 2001. WASHINGTON, WA, JUNE 24 - JUNE 29, 2001, IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, NEW YORK, NY: IEEE, US, 24 June 2001 (2001-06-24), page 335 XP001071965 ISBN: 0-7803-7123-2 -----</p>	

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

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			DE 3787898 T2	05-05-1994
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			JP 62185413 A	13-08-1987